

**STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER**

IN RE: **IMPROVEMENT DISTRICT NO. 1**
 Water System No. 5400968

TO: BOARD OF DIRECTORS
 IMPROVEMENT DISTRICT NO. 1
 P.O. BOX 482
 THREE RIVERS, CA 93271

**CITATION FOR NONCOMPLIANCE
WITH THE SURFACE WATER TREATMENT RULE**

April and May 2014

Issued on July 9, 2014

Section 116650, Chapter 4, Part 12, Division 104 of the California Health and Safety Code (CHSC), authorizes the issuance of a citation for failure to comply with a requirement of the California Safe Drinking Water Act, or any regulation, standard, permit, or order issued hereunder.

VIOLATION

The State Water Resources Control Board, Division of Drinking Water (hereinafter 'Division') hereby issues a Citation to the Improvement District No. 1 Water System (hereinafter 'Water System'), for failure to comply with Sections 64652(a) and 64654(a) of Title 22, California Code of Regulations (CCR). Specifically, the Water System (mailing address: P.O. Box 482, Three Rivers, CA 93271) failed to comply with disinfection treatment requirements for *Giardia lamblia* cyst inactivation during the months of April and May 2014. The Water System was issued Citation No. 03-12-14C-007 for disinfection treatment failures in January, February and March 2014.

1 The Water System operates under Domestic Water Supply Permit No. 3011, issued by the Tulare
2 County Environmental Health Services in September of 2003. The Water System is classified as a
3 community water system serving a reported residential population of approximately 200 persons
4 through 78 service connections. The Water Systems utilizes raw surface water from the Kaweah
5 River and Well 01 (Wagonwheel), a groundwater under the direct influence of surface water
6 (GWUDISW) source, as the source of supply. The raw surface water and GWUDISW sources are
7 being treated through an American Water Technologies Multi Barrier/Water Filtration (MB/WF)
8 surface water treatment plant which is an alternative filtration plant with processes that include:
9 coagulation, pressure clarification, pressure filtration, and disinfection.

10
11 CCR Section 64652(a) specifies that each supplier using an approved surface water source shall
12 provide multibarrier treatment that meets the requirements of the Surface Water Filtration and
13 Disinfection Treatment Regulations (SWTR) and reliably ensures that at least a total of 99.9 percent
14 (3.0-log) reduction of *Giardia lamblia* cysts and 99.99 percent (4.0-log) reduction of viruses is
15 achieved through filtration and disinfection. The SWTR provides a 2.0-log removal credit for
16 *Giardia lamblia* cysts and a 1.0-log removal credit for viruses through alternative filtration
17 treatment as provided by the Water System. To comply with Section 64654(a) of the SWTR, the
18 Water System must provide an additional 1.0-log inactivation of *Giardia lamblia* cysts and a 3.0-log
19 inactivation of viruses through disinfection.

20
21 The Water System is required to calculate a daily disinfectant pathogen inactivation (CT) ratio in
22 order to determine the effectiveness of the disinfection treatment. This effectiveness is dependent on
23 various factors including temperature, pH, the chlorine residual, and the contact time. The Water
24 System is equipped with three (3) 5,000 gallon clearwell tanks, in which CT was provided. Two (2)
25 of the clearwell tanks are configured in parallel and flow into one (1) 5,000 gallon clearwell tank
26 prior to entering the distribution system.

27

The Water System utilizes free chlorine as the method of disinfection. The Water System is required to provide a daily CT ratio of at least 1.0 to determine compliance with disinfection inactivation requirements and monitor the performance of the disinfection process. This ratio is determined by the amount of CT achieved in relation to the amount of CT that is required. The Water System failed to maintain a daily CT ratio of 1.0 or greater for fourteen (14) days in April 2014 and six (6) days in May 2014. These failures are summarized below in Table 1:

Table 1: CT Ratio Failure Dates

Date	CT Ratio	Calculated Log Inactivation
4/2/2014	0.4	0.4
4/3/2014	0.7	0.7
4/6/2014	0.9	0.9
4/11/2014	0.2	0.2
4/12/2014	0.4	0.4
4/13/2014	0.8	0.8
4/16/2014	0.2	0.2
4/17/2014	0.9	0.9
4/20/2014	0.1	0.1
4/22/2014	0.1	0.1
4/23/2014	0.9	0.9
4/27/2014	0.1	0.1
4/28/2014	0.5	0.5
4/29/2014	0.7	0.7
5/1/2014	0.6	0.6
5/2/2014	0.4	0.4
5/3/2014	0.0	0.0
5/6/2014	0.9	0.9
5/9/2014	0.9	0.9
5/18/2014	0.9	0.9

All approved surface water sources utilized by a supplier shall be provided with continuous disinfection treatment sufficient to insure that the total treatment process provides inactivation of *Giardia lamblia* cysts and viruses, in conjunction with the removals obtained through filtration, to meet the reduction requirements specified in Section 64652(a).

1 **NOTIFICATION REQUIREMENTS**

2 Section 64666 (a) requires a surface water system to notify its consumers whenever there is a failure
3 to comply with the treatment requirements specified in Sections 64652 and 64654. Public
4 notification for violations of Sections 64652 and 64654 of the SWTR is included in Attachment A.
5 Proof of Public Notification (Attachment B) must be submitted to the Division within ten (10) days
6 of disseminating Attachment A. The Water System must either mail or hand-deliver the notice to all
7 of its customers.

8
9 Section 64663 (b) and (c) require the Water System to notify the Division as soon as possible, but
10 no later than by the end of the next business day, or within 24 hours, whichever is less, by telephone
11 or other equally rapid means whenever: (b) There is a failure to maintain a minimum disinfectant
12 residual of 0.2 mg/L in the water being delivered to the distribution system. The supplier shall report
13 whether or not the disinfectant residual was restored to at least 0.2 mg/L within four hours. (c) An
14 event occurs which may affect the ability of the treatment plant to produce a safe potable water
15 including but not limited to spills of hazardous materials in the watershed and unit treatment process
16 failures. The Water System failed to notify the Division within the 24 hours of the treatment failure.

17
18 **DIRECTIVES**

19 The Improvement District No. 1 Water System is hereby directed to take the following actions.
20 Failure to comply with the Directives of this citation may result in additional enforcement actions.

21 1. The Water System shall submit a written report to the Division by **August 15, 2014**,
22 describing:

23 (a) The cause of the failure to provide adequate pathogen inactivation, as measured using
24 the CT ratio, and any corrective actions taken, and

25 (b) Any necessary operational changes that will be made to prevent future disinfection
26 treatment failures.
27

- 1 2. The Water System shall calculate CT daily and notify the Division no later than by the end
2 of the next business day or within 24 hours when the calculated CT ratio on any given day
3 is below 1.0.
4
- 5 3. The Water System shall provide public notification to all customers by mail or hand-
6 delivery by **July 25, 2014**, informing them that the water did not meet the disinfection
7 treatment requirements of the SWTR during the months of April and May 2014. The public
8 notification is included in Attachment A. The Water System shall provide proof of
9 publication of the notification and a copy of the public notification to the Division by
10 **August 15, 2014**. A copy of this form is included as Attachment B.
11
- 12 4. As specified in Citation No. 03-12-14C-007 issued on April 25, 2014, by June 1, 2014, the
13 Water System was required to submit a draft Operations Plan. The Water System requested
14 an extension to this directive on June 2, 2014; however, no draft operations plan has been
15 submitted. By **September 1, 2014**, the Water System shall submit a draft Operations Plan.
16 The draft Operations Plan shall at a minimum include: operational procedures, alarm set
17 points, monitoring procedures, reporting procedures, reporting forms, CT calculations,
18 notification procedures, staffing requirements and a response plan in the occurrence of
19 treatment failure.
20
- 21 5. All submittals required by this Citation shall be addressed to:
22 Tricia A. Wathen, P.E., Senior Sanitary Engineer
23 State Water Resources Control Board
24 Division of Drinking Water
25 Southern California Branch
26 Drinking Water Field Operations
27 265 W. Bullard Avenue, Suite 101
Fresno, CA 93704

CIVIL PENALTIES

Sections 116650(d) and 116650(e) of the CHSC allow for the assessment of a civil penalty for failure to comply with requirements of the California Safe Drinking Water Act. Failure to comply with any provision of this Citation may result in the Division imposing an administrative penalty of not less than \$100 (one hundred dollars) per day as of the date of violation of any provision of this Citation.

Date

July 9, 2014Tricia A. Wathen
Tricia A. Wathen, P.E.

Senior Sanitary Engineer, Visalia District
SWRCB, Division of Drinking Water
DRINKING WATER FIELD OPERATIONS BRANCH

TAW/BP

Attachments:

Attachment A: Public Notification Form
Attachment B: Proof of Notification Form



IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.

Improvement District No. 1 Did Not Meet Treatment Requirement (Disinfection)

Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what you should do, what happened, and what we are doing to correct this situation.

In order to ensure proper disinfection, water in the treatment plant must be in contact with chlorine or a similar disinfectant for a minimum amount of time. On April 2, April 3, April 6, April 11 through April 13, April 16, April 17, April 20, April 22, April 23, April 27 through April 29, May 1 through May 3, May 6, May 9 and May 18, 2014, this did not occur. Although chlorine quickly kills most bacteria, it is less effective against organisms such as viruses and parasites. For this reason, water needs to mix with chlorine for a longer time period to kill such organisms. The amount of time necessary, or the "contact time", depends on the amount of disinfectant in the water and the temperature of the water.

What should I do?

- **You do not need to boil your water or take other actions.**
- This is not an emergency. If it had been, you would have been notified immediately. Tests taken during this same time period did not indicate the presence of bacteria in the water.
- *Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.* These symptoms, however, are not caused only by organisms in drinking water, but also by other factors. If you experience any of these symptoms and they persist, you may want to seek medical advice.
- People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1(800) 426-4791.
- If you have other health issues concerning the consumption of this water, you may wish to consult with your doctor.

What happened? What is being done?

[Describe corrective action]. [Disinfectant residual levels/contact times] so far this month have met all requirements.

For more information, please contact [name of contact] at [phone number] or [mailing address].

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this public notice in a public place or distributing copies by hand or mail.

Secondary Notification Requirements

Upon receipt of notification from a person operating a public water system, the following notification must be given within 10 days [Health and Safety Code Section 116450(g)]:

- **SCHOOLS:** Must notify school employees, students, and parents (if the students are minors).

- RESIDENTIAL RENTAL PROPERTY OWNERS OR MANAGERS (including nursing homes and care facilities): Must notify tenants.
- BUSINESS PROPERTY OWNERS, MANAGERS, OR OPERATORS: Must notify employees of businesses located on the property.

This notice is being sent to you by Improvement District No. 1.

State Water System ID#: 5400968.

Date distributed: _____.

PROOF OF NOTIFICATION

(Return with copy of Notice)

As required by Section 116450 of the California Health and Safety Code, I notified all users of water supplied by the **Improvement District No. 1 Water System** (water system) of the failure to meet the **California Surface Water Treatment Rule – Contact Time** for the months of **April and May 2014** as directed by the Department.

Notification was made on _____ (date) by

hand delivered and/or mailed and/or posted written notice.
(circle all completed)

Signature of Water System Representative

Print Name

Date

DISCLOSURE: Be advised that Section 116725 and 116730 of the California Health and Safety Code state that any person who knowingly makes any false statement on any report or document submitted for the purpose of compliance with the attached order may be liable for a civil penalty not to exceed five thousand dollars (\$5,000) for separate violation for each day that violation continues. In addition, the violators may be prosecuted in criminal court and upon conviction, be punished by a fine of not more than \$25,000 for each day of violation, or be imprisoned in the county jail not to exceed one year, or by both the fine and imprisonment.

Due by August 15, 2014

System No.: 5400968

Enforcement Action No.: 03-12-14C-009